

Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
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AIR QUALITY PERMIT

Permittee Name: Dart Container Corporation of Kentucky
Mailing Address: ATTN: Robert Smith, Office Manager
U. S. Highway 31 West; P.O. Box 309
Horse Cave, Kentucky 42749

Source Name: Dart Container Corporation of Kentucky
Mailing Address: 975 Dixie, U. S. Highway 31 West; P.O. Box 309
Horse Cave, Kentucky 42749
Source Location: Same as above

PERMIT TYPE: Federally Enforceable Title V
Review Type: Synthetic Minor / Title V / PSD

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John E. Hornback, Director
Division for Air Quality

TABLE OF CONTENTS

<u>SECTION</u>		<u>DATE OF ISSUANCE</u>	<u>PAGE</u>
SECTION A	PERMIT AUTHORIZATION	April 26, 2001	1
SECTION B	EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	April 26, 2001	2
SECTION C	INSIGNIFICANT ACTIVITIES	April 26, 2001	18
SECTION D	SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	April 26, 2001	19
SECTION E	CONTROL EQUIPMENT OPERATING CONDITIONS	April 26, 2001	20
SECTION F	MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS	April 26, 2001	21
SECTION G	GENERAL CONDITIONS	April 26, 2001	24
SECTION H	ALTERNATE OPERATING SCENARIOS	April 26, 2001	30
SECTION I	COMPLIANCE SCHEDULE	April 26, 2001	32

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on September 28, 2000, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- | | | |
|----|----------|---|
| 01 | (BLR-01) | One (1) Cleaver Brooks 700 HP Steam Boiler -
Construction Date: Jan 1979
Primary fuel: Natural Gas
Backup fuel: Fuel Oil #2
Maximum rated capacity: 31.40 mmBTU/hr |
| 02 | (BLR-02) | One (1) Cleaver Brooks 700 HP Steam Boiler -
Construction Date: Jan 1979
Primary fuel: Natural Gas
Backup fuel: Fuel Oil #2
Maximum rated capacity: 31.40 mmBTU/hr |
| 03 | (BLR-03) | One (1) Cleaver Brooks 800 HP Steam Boiler -
Construction Date: June 1987
Primary fuel: Natural Gas
Backup fuel: Fuel Oil #2
Maximum rated capacity: 33.50 mmBTU/hr |

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect fired heat exchangers, applies to the particulate matter and sulfur dioxide emissions from the combustion of natural gas and fuel oil.

1. Operating Limitations:

None

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:015, Section 4(1)(c), emissions of particulate matter from the combustion of either natural gas or fuel oil shall not exceed the following:

Emission Point	Allowable
01	0.328 lb/mmBTU
02	0.328 lb/mmBTU
03	0.328 lb/mmBTU

- b. Pursuant to 401 KAR 59:015, Section 4(2), the opacity of visible emissions from the combustion of either natural gas or fuel oil shall not exceed 20%.
- c. Pursuant to 401 KAR 59:015, Section 5(1)(c)1, emissions of sulfur dioxide from the combustion of either natural gas or fuel oil shall not exceed the following:

Emission Point	Allowable
01	1.18 lb/mmBTU
02	1.18 lb/mmBTU
03	1.18 lb/mmBTU

d. VOC emissions

- i. The total VOC emissions from combustion of natural gas and fuel oil # 2 from emission points (01),(02) and(03) shall not exceed 1.174 TPY during any twelve consecutive month period.
- ii. The increase of VOC emissions from using emission points (01), (02) and (03) as the control device for burning pentane (Captured at emission point 04) shall not be included in determining compliance with 4.a above, but shall be counted as emissions from Emission Point 04, the cup manufacturing.

Compliance Demonstration Method:

Particulate Matter and Sulfur Dioxide Emissions: (The “Total” used below is the total from all the three emission points above and the fuel consumption rate is in millions of cubic feet)

Allowable = $[(\text{Total Monthly gas or fuel oil consumption rate} \times \text{Emission factor listed in Kentucky Emissions Inventory}) / (\text{Total Hours of operation per month} \times \text{Total Hourly Rated Capacity})]$

VOC Emissions:Compliance with condition 4.a above

Monthly emissions from burning of natural gas and fuel oil # 2 shall be calculated and be kept available at plant, and shall be used to calculate the annual emission rate.

Monthly Emission Rate = $[\text{Total Monthly gas or fuel oil consumption rate} \times \text{Emission factor listed in Kentucky Emissions Inventory}]$

Yearly Emission Rate = Annual emissions shall be based on emissions for any twelve (12) consecutive months.

Compliance with condition 4.b above

See Emission Point 04, Emission Limitations for compliance demonstration

3. Testing Requirements:

- a. Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the division.
- b. See Emission Point 04, Testing Requirement for additional testing requirements.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following information:

- a. The total monthly fuel usage rate (cubic feet/month or gallons per month) for each of the fuel listed herein.
- b. The total monthly hours of operation (hours operated per month) of the boilers.
- c. The sulfur content of each type of fuel burned. The sulfur content may be determined by fuel sampling and analysis or by fuel supplier certification.
- d. See Emission Point 04, Monitoring Requirements for additional monitoring requirements for the boilers.

5. Specific Record keeping Requirements:

- a. See Specific Monitoring Requirements above.
- b. See Emission Point 04, Recordkeeping Requirements for additional record keeping requirements.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions:

See Emission Point 04, **Specific Control Equipment Operating Conditions** for requirements on the boiler operation.

SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

04 (PSCUP-01) Expandable Polystyrene (EPS) Container Manufacturing
(Cup Molding Presses, Dumpers, Blenders, Holding Tanks, Pre
Expanders, Screeners, Storage Bags)

APPLICABLE REGULATIONS:

None

1. Operating Limitations:

The control equipment and the CEM shall be in operation to get credit for the emission reduction.

2. Emission Limitations:

The VOC (pentane) emissions shall not exceed 203 TPY during any twelve consecutive month period.

Compliance Demonstration Method:

Monthly emissions shall be calculated and be kept available at plant, and shall be used to calculate the annual emission rate.

Monthly Emission Rate = [Monthly EPS throughput rate x Emission factor listed in Kentucky Emissions Inventory] - [Monthly Emissions of Pentane captured with the emissions capturing device(hood) as recorded by the Continuous Emission Monitor (CEM) x Destruction Efficiency of the pentane as measured during the last compliance demonstration test]

Yearly Emission Rate = Annual emissions shall be based on emissions for any twelve (12) consecutive months.

3. Testing Requirements:

The Division reserves the right for testing to measure the pentane content in the EPS beads (Raw Material) and the molded cups (Product). The difference is all assumed to be VOC emissions. The Division also reserves the right for testing for the capture efficiency of the hood, the Destruction Efficiency (Control Efficiency) of the pentane captured by hood, and the performance of the Continuous Emission Monitor (CEM).

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following parameters:

- The monthly throughput of EPS and the pentane concentration in EPS beads.
- The monthly amount of VOC(pentane) in tons, captured by the emissions capturing device. This shall be measured as proposed by the source using the CEM data and a computer program.

- c. The facility shall continuously monitor flow rate (CFM) and pentane concentration of air into Pentane Control System in order to determine lb/hr of pentane entering the boilers. Operation of Pentane Control System shall be monitored on a hourly basis to ensure that the system is working properly. The monitor to measure pentane concentration shall be calibrated and operated according to manufacturer's specifications.

5. Specific Record keeping Requirements:

- a. See Specific Monitoring Requirements above.
- b. A log shall be kept of all routine and non routine maintenance performed on each control device.

6. Specific Reporting Requirements:

The monthly VOC emissions calculations shall be submitted to the Bowling Green field office on quarterly basis.

7. Specific Control Equipment Operating Conditions:

The control equipment consisting of the emissions capturing device (hood), the CEM and the boiler shall be operated according to the manufacturers guidelines or those parameters determined during the most recent performance/compliance test, whichever is more efficient. The air pollution control system shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers.

SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

05	(IMPACT-01)	Impact Extruders & Thermoformers
06	(OPS-01)	OPS Extrusion Lines & Thermoformers
07	(RECYC-01)	Recycle/Reclaim Extruders

APPLICABLE REGULATIONS:

401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to toxic air emissions.

1. Operating Limitations:

The throughput rate of polystyrene shall not exceed the following amounts during any twelve consecutive month period:

Emission Point	Throughput Rate
05	259,296,000 lb
06	84,096,000 lb
07	105,120,000 lb

Compliance Demonstration Method:

Compliance with the annual emissions limits contained in this permit shall be based on emissions for any twelve (12) consecutive months. Monthly records of polystyrene throughput shall be kept available at the plant.

2. Emission Limitations:

1. The total VOC emissions from the affected facilities listed above shall not exceed the following amounts during any twelve consecutive month period:

Emission Point	Allowable
05	14.52 TPY
06	4.714 TPY
07	3.94 TPY

Compliance Demonstration Method:

Monthly emissions shall be calculated and be kept available at plant, and shall be used to calculate the annual emission rate.

Monthly Emission Rate = [Monthly Polystyrene throughput rate x Emission factor listed in Kentucky Emissions Inventory]

Yearly Emission Rate = Annual emissions shall be based on emissions for any twelve (12) consecutive months.

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the division. If different testing methods are proposed from above mentioned regulation or if there is no suitable reference method for the measurement of VOC, a testing protocol shall be submitted by the source one (1) month in advance, and be approved by the division.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the monthly usage rate of polystyrene

5. Specific Record keeping Requirements:

See Specific Monitoring Requirements above

6. Specific Reporting Requirements:

The monthly VOC emissions calculations shall be submitted to the Bowling Green field office on quarterly basis.

7. Specific Control Equipment Operating Conditions:

None

SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

08	(FOAMPRINT-01)	UV Ink Printers
09	(PAPERPRINT-01)	In-Line UV Ink Printers and Off Line Printers

APPLICABLE REGULATIONS:

1. 401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to the toxic air emissions.
2. 401 KAR 59:212, New graphic arts facilities using rotogravure and flexography, applies to the UV ink printers.
3. 401 KAR 61:060, Existing sources using organic solvents, applies to the methanol and isopropyl alcohol usage.

1. Operating Limitations:**Ink Usage:**

Annual throughput of UV ink shall not exceed the following amounts:

Emission Point	Throughput
08	175,200 lb
09	233,798 lb

Cleanup Solvent Usage:

Combined annual throughput of cleanup solvents (methanol and isopropyl alcohol) from emission points (09) and (10) shall not exceed 14,600 lb/yr.

Compliance Demonstration Method:**Ink Usage:**

Compliance shall be based on emissions for any twelve (12) consecutive months. Monthly records of UV ink usage shall be kept available at the plant.

Cleanup Solvent Usage:

Compliance shall be based on emissions for any consecutive twelve (12) months. Monthly records of combined [emission points (09) and (10)] usage of cleanup solvents shall be kept available at the plant.

2. Emission Limitations:

Total VOC emissions shall not exceed the following during any twelve consecutive month period:

From Ink Usage:

Emission Point	Allowable
08	0.876 TPY
09	1.17 TPY

From Cleanup Solvent Usage:

1. The combined VOC emissions from emission points (08) and (09) shall not exceed 7.3 TPY.
2. According to 401 KAR 61:060, the total organic material emitted from each of the affected facilities in emission points (08) and (09), shall not exceed 8 lb/hr and 40 lb/day.

Compliance Demonstration Method:

Ink Usage:

Monthly emissions shall be calculated and be kept available at plant, and shall be used to calculate ~~the~~ annual emission rate.

Monthly Emission Rate = [Monthly throughput rate of the ink x Emission factor listed in Kentucky Emissions Inventory]

Yearly Emission Rate = Annual emissions shall be based on emissions for any twelve (12) consecutive months.

Cleanup solvent usage:

Annual limit on VOC:

Monthly emissions shall be calculated and be kept available at plant, and shall be used to calculate ~~the~~ annual emission rate.

Monthly Emission Rate = [Monthly throughput rate of the cleanup solvent x Emission factor listed in Kentucky Emissions Inventory]

Yearly Emission Rate = Annual emissions shall be based on emissions for any twelve (12) consecutive months.

Limit on Total Organic Material according to 401 KAR 61:060 :

Hourly Emission Rate = [Monthly emissions from ink usage / (Total hours of operation per month)] + [Monthly emissions from clean up solvent usage / (Total hours of operation per month)]

Daily Emission Rate = [Hourly Emission Rate x Hours of operation per day]

3. Testing Requirements:

Ink Usage:

The permittee shall make available upon request the results of analyses of samples of the inks used at the facility to verify that the inks meet the requirements of 401 KAR 59:212 Section 6.

Reference Method 24 a, as referenced in 401 KAR 50:015, (or an alternate method that was approved by the division or the EPA) shall be used to determine the VOC content of the inks upon request.

Cleanup Solvent Usage:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the division. If different testing methods are proposed from above mentioned regulation or if there is no suitable reference method for the measurement of VOC, a testing protocol shall be submitted by the source one (1) month in advance, and be approved by the division.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following parameters:

Ink Usage:

The monthly usage rates of UV ink and daily hours of operation

Cleanup Solvent Usage:

The monthly usage rates of the clean up solvent and daily hours of operation

5. Specific Record keeping Requirements:

See Specific Monitoring Requirements above.

6. Specific Reporting Requirements:

The monthly VOC emissions calculations shall be submitted to the Bowling Green field office on quarterly basis.

7. Specific Control Equipment Operating Conditions:

None

8. State-Origin Requirements: None

9. Alternate Operating Scenarios: None

10. Compliance Schedule: N/A

11. Compliance Certification Requirements: N/A

SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (Continued)

10	(DI Foam - Existing)	Ten (10) Existing DI Foam Extrusion lines with Laminators (Laminating Extruders)
11	(DI Foam - New)	Eight (8) New DI Foam Extrusion lines with Laminators (Laminating Extruders)
12	(---)	Roll Storage
13	(---)	Thermoforming
14	(---)	Scrap Regrinding and Fluff Transfer
15	(---)	Nine (9) Reclaim Extruders (Repelletization)
16	(--)	Isopentane Storage Tank (Pressurized)
17	(--)	Regenerative Thermal Oxidizer
18	(--)	Warehouse Storage (Fugitive Emissions)

BACT Control Device: Regenerative Thermal Oxidizer

Destruction Efficiency: 95%

CAPTURE DEVICES (TABLE 1):

Emission Point	Affected Facility	VOC Capture Device	Capture Efficiency	BACT (RTO) Control Efficiency
10	Extrusion Lines (10)	Hoods over the 'die' part of the Extruders	45.0 - 50.0%	95%
11	Extrusion Lines (8)	Hoods over the 'die' part of the Extruders	45.0 - 50.0%	95%
12	Roll Storage	None	None	None
13	Thermoforming	None	None	None
14	Scrap Regrinding and Fluff Transfer	Ducted to the RTO	100%	95%
15	Reclaim Extruders	Vent, emissions routed to RTO by vacuum	100%	95%
16	Isopentane Storage Tank (Pressurized)	No emissions to the atmosphere	None	None
18	Warehouse Storage	Fugitive Emissions	None	None

Note: There is no capture device required for the laminating extruders at emission point 10 and 11.

APPLICABLE REGULATIONS:

- i. Regulation 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality applies to the VOC emissions from emission points 10 through 18.
- ii. Regulation 401 KAR 63:020, Potentially hazardous matter or toxic substances applies to the styrene emissions from emission points 10, 11, and 15.

1. Operating Limitations:**BACT Limits:**

- a. The VOC emissions shall be captured by the “capture equipment” as listed in table 1 at all times any of the emissions units listed [Emission Points 10, 11, 14 and 15] are in operation.
- b. The captured VOC emissions from emission points 10, 11, 14 and 15 shall always be vented to the Regenerative Thermal Oxidizer (Emission Point 17) (RTO). The RTO shall always be operational and control volatile organic compounds (VOCs) and be operated properly in accordance with manufacturer’s specifications and/or standard operating procedures at all times any of the emissions units listed [Emission Points 10, 11, 14 and 15] are in operation.
- c. The capture efficiencies listed in Table 1 shall be met at all the times when the associated emission units are in operation.
- d. The throughputs of Polystyrene pellets, and Isopentane through primary DI Foam extruders (not including PS for laminator) shall not exceed the following:

Emission Point	Raw Material	lb/hr	tons/hr	Tons per year
10	Iso-Pentane	540	0.27	2332.8
10	Polystyrene pellets	12,000	6	38,880
11	Iso-Pentane	432	0.216	1,866.3
11	Polystyrene pellets	9,600	4.8	31,104

Compliance Demonstration Method:

- The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission units listed [Emission Points 10, 11, 14 and 15] are in operation but the associated capture equipment and control equipment (RTO) is not.
- See the Testing Requirements below.
- See the Monitoring and Recordkeeping requirements below.

2. Emission Limitations:

- a. BACT Requirement: The total VOC emissions from emission points 10 through 15 shall not exceed 1.455 tons per day and 523.6 tons per year (twelve consecutive month period).
- b. BACT Requirement: The RTO shall reduce the total organic compound emissions (VOC’s), less methane and ethane vented to it by 95 percent by weight or greater.
- c. BACT Requirement: The total VOC emissions (fugitives) from emission point 18, Warehouse Storage (fugitives) shall not exceed 61.8 tons per year (twelve consecutive month period).
- d. BACT Requirement:

Emission Point	Affected Facility	Emission Limit (tons per year)
12	Roll Storage	99.7
13	Thermoforming	265.9

e. Non-BACT requirement:

The permittee shall construct a total enclosure for the roll storage within one year of starting up the converted (conversion to usage of Iso-Pentane)DI-Foam extrusion process. See Section H, Alternate Operating Scenarios.

Compliance Demonstration Method:Daily and Yearly VOC Emissions from Emission point 10, 11, 12, 13, 14 and 15:

- The emission limits for emission points 10 through 15 are combined for the ease of compliance demonstration.
- The permittee has submitted VOC emissions (for fugitives) calculations from warehouse storage based on the data from their Pennsylvania plant. See Testing requirements below for compliance with warehouse storage BACT limit.
- Daily emissions shall be calculated using the computer program and be kept available at plant, and shall be used to calculate the annual emission rates. The data recorded/calculated shall be kept available either in hard copy or computer readable form.

$$\begin{array}{ccccccc} \text{Daily emission} & \text{Total daily amount} & & \text{Blowing} & \{ & \text{Blowing} & \text{Destruction} \\ = & \text{Rate} & \text{of blowing agent} & - & \text{agent} & \text{X} & \text{efficiency of} \\ \text{(tons/day)} & & \text{charged} & & \text{remaining in} & & \text{RTO from last} \\ & & \text{(tons/day)} & & \text{the product} & & \text{performance} \\ & & & & \text{(tons/day)} & & \text{test} \end{array} \quad \}$$

$$\begin{array}{ccccc} \text{Blowing agent} & = & \text{Product output} & \text{X} & \text{Source specific emission factor established for} \\ \text{remaining in the} & & \text{(tons/day)} & & \text{all the products (tons of VOC/ton of product)} \\ \text{product (tons/day)} & & & & \end{array}$$

$$\begin{array}{ccccc} \text{Blowing agent directed to RTO} & = & \text{Mass of VOC emissions} & \text{X} & \text{Destruction efficiency of} \\ \text{(tons/day)} & & \text{(tons/day) as determined by the} & & \text{RTO as determined from the} \\ & & \text{computer program using IR} & & \text{last performance test} \\ & & \text{sensor, and mass flow meter} & & \\ & & \text{data} & & \end{array}$$

Note: See Testing Requirements below

$$\begin{array}{ll} \text{Monthly Emission Rate} & = \text{Sum of daily emissions in a calendar month.} \\ \text{Yearly Emission Rate} & = \text{Annual emissions shall be based on emissions for any twelve (12) consecutive months.} \end{array}$$

See 2. Testing Requirements below for compliance with BACT limits on Roll Storage and Thermoforming.

- See Section H – Alternate Operating Scenarios, for operation of Roll Storage after the construction of Total Enclosure of Roll Storage (Inside the building storage). The BACT limit for Roll Storage at that point will be superseded by the conditions in Alternate Operating Scenario, as they are more stringent than the BACT. After the permittee switches to “Inside the building storage”, the BACT shall be the “Inside roll storage” with RTO as the control equipment.

2. Testing Requirements:

- a. Extrusion, Scrap Grinding, and Reclaim Extruders: Performance testing shall be done for the following in accordance with the timeframes specified in Section G(d)(5) of this permit:
 - The capture efficiency of the hoods used at Extrusion (Emission points 10 and 11) shall be tested for capture efficiency. The testing shall be done by using a “total enclosure” at the extrusion line. The submission of the testing protocol shall be done in accordance with the timeframes specified in Section G(d)(5) and (6) of this permit.
 - The performance of IR sensor (compare the VOC emissions using Method 18 or 25 A or equivalent)
 - Duct work (Check for leaks)
 - Flow meter (compare with flow rates obtained during the Method 18 or 25A or equivalent testing)
 - The capability of a computer program to integrate the capture air flow rate and concentration data to calculate the amount of pentane in pounds or tons.
- b. Source specific emission factor shall be established by testing to measure the pentane content in the product (thermoformed material) (PCTM). The testing shall be done to establish a representative emission factor from all the product grades. The results from PCTM shall be used to comply with the emission limit on emission points 10 through 15 using mass balance of pentane. See the Emission Limitations above. A submission of the testing protocol and the performance testing to establish a representative source-specific emission factor (pentane emissions) shall be done in accordance with the timeframes specified in Section G(d)(5) and (6) of this permit. The Division reserves the right to require additional testing.
- c. Roll Storage: Testing shall be done to measure the pentane content in the extruded material (PCEM) and in the extruded material after being aged in Roll Storage (PCARS). The testing shall be done to establish a representative emission factor from all the product grades. The pentane content shall be measured immediately after the extrusion and after the material is aged and is ready to go to thermoforming. The difference is all assumed to be VOC emissions from roll storage. This will be used for the compliance with BACT emission limit. A submission of the testing protocol shall be done in accordance with the timeframes specified in Section G(d)(5) and (6) of this permit. The Division reserves the right to require additional testing.
- d. Thermoforming: Emissions shall be calculated from thermoforming by using test results of PCARS and PCTM. The difference between PCARS and PCTM is assumed to be the VOC emissions from thermoforming. This will be used for the compliance with BACT emission limit. A submission of the testing protocol shall be done in accordance with the timeframes specified in Section G(d)(5) and (6) of this permit. The Division reserves the right to require additional testing.

e. BACT Requirements for RTO:

- i. Pursuant to 401 KAR 50:045, Section 1, performance testing using appropriate reference methods specified in 401 KAR 50:015, shall be conducted to demonstrate that RTO will achieve 95% destruction efficiency or greater. If different testing methods are proposed from above mentioned regulation or if there is no suitable reference method for the measurement of VOC, a testing protocol shall be submitted by the source one (1) month in advance, and be approved by the Division.
- ii. Sampling sites shall be located at the inlet and the outlet of the control device to measure the Mass Rate of VOC. Inlet sampling shall be done simultaneously with outlet sampling to determine the destruction efficiency.
- iii. The following equation shall be used to calculate the mass destruction efficiency:

$$DE = \frac{MR \text{ entering} - MR \text{ exiting}}{MR \text{ entering}} \times 100 \%$$

Where

DE = Destruction Efficiency of RTO, percent

MR entering = Mass Rate of VOC entering the control device

MR exiting = Mass Rate of VOC exiting the control device

- iv. See Section G(d)(5) and (6) of the permit for the timeframes of initial Compliance Demonstration requirements.
- v. The permittee shall conduct testing to demonstrate compliance with the capture efficiencies listed in Table 1 above.
- vi. The permittee shall conduct a quarterly visual leak detection test for the valves in RTO. Any valve that is designated by the permittee as an unsafe-to-monitor or hard-to-reach valves are exempt from leak detection requirements. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected. The results shall be recorded and reported with annual compliance certification.
- f. Warehouse Storage (fugitives): The VOC emissions information from Pennsylvania warehouse storage (fugitives) testing shall be submitted for Division's review and records. No additional testing is required at this point for compliance with the warehouse BACT emission limit. However, the Division reserves the right to require additional testing.
- g. Styrene Emissions: Source specific emission factor shall be established by testing to measure the styrene emissions from the entire process. A testing protocol shall be submitted by the source one (1) month in advance, and be approved by the Division. The testing results will be used to develop a source specific emission factor for styrene and shall be used to calculate styrene emissions on annual basis. This is required to avoid 112(g) applicability. A submission of the testing protocol shall be done in accordance with the timeframes specified in Section G(d)(5) and (6) of this permit. The Division reserves the right to require additional testing.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor and maintain records of the daily usage rate(tons/day) of polystyrene raw material (at emission points 10 and 11), daily amount of Isopentane charged (tons/day), and the daily amount of finished product(tons/day).

- b. The permittee shall monitor the flow rate of the exhaust gases from the extrusion process, grinding process and the Reclaim Extruders into the RTO and the concentration of VOC's in the exhaust stream. A flow sensor shall be used to measure the flow rate and a Infra Red sensor (IR sensor) shall be used to measure the concentration of the VOC's. A Computer program shall be used to integrate the flow rate and the concentration data to calculate the daily mass of VOC's inputted into the RTO. The data recorded shall be kept available either in hard copy or computer readable form. The daily VOC captured data shall be used to calculate the combined daily mass VOC emissions (tons/day) calculated from the emission points 10 through 15. See the compliance demonstration at the emission limitation above.

RTO Requirements:

- c. The firebox temperature shall be measured by means of a data-recording device. The monitor shall be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.
- d. The firebox temperature shall be recorded at least once every 15 minutes or shall be recorded in 15-minute or more frequent block average values. The data recorded shall be kept available either in hard copy or computer readable form.

5. Specific Record keeping Requirements:

- a. See Specific Monitoring Requirements above.
- b. The permittee shall on annual basis calculate the styrene emissions from the emission points 10 through 18 using the source specific emission factor that is developed by testing. If the styrene emissions exceed 10 tons in any consecutive 12 months, the permittee will be subject to the requirements of section 112(g), case by case MACT.

RTO requirements:

- c. Record and report the firebox temperature averaged over the full period of the initial performance test (initial compliance demonstration test).
- d. Record and report the combustion zone residence time and the average flow rate over the full period of the initial performance test.
- e. Once a day check the firebox temperature (last 24 hours of recorded data) to note if the temperature is above the manufacturer's recommendation or the temperature established during the initial compliance test, which verified the 95% destruction efficiency.

6. Specific Reporting Requirements:

- a. The monthly VOC emissions (sum of daily emissions over a period of one calendar month) calculations shall be submitted to the Bowling Green field office on semi-annual basis.
- b. Report the times when the firebox temperature drops below the manufacturer's recommendation or the temperature established during the initial compliance test which verified the 95% destruction efficiency and all operating days when insufficient monitoring data is collected.
- c. The semi-annual styrene emissions from emission points 10 through 18.

7. Specific Control Equipment Operating Conditions:

- a. The RTO's combustion chamber(s) temperature shall not fall below the manufacturer's recommendation or the temperature established during the initial compliance test which verified the 95% destruction efficiency.
- b. Before the initial compliance test, the RTO's combustion chamber temperature shall not fall below the vendor's recommended temperature.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 50:035, Section 5(4).

Description**Applicable Regulation****Particulate Emissions from the following Activities:**

401 KAR 59:010 and 63:010

1. Impact Thermoformers & grinders
2. OPS Thermoformers & grinders
3. DI Foam Thermoformers & grinders
4. Injection Molding Machines
5. Paper Cup Machines

Other Activities:

1. Paper Cup Roll Splitter (1)
2. Parts Cleaners/Cold Cleaners (4)
3. Boiler Back-up Fuel Tank (1)
4. Truck Filling Station (1)
5. Truck Garage (1)
6. 500 gallon Motor Oil Storage Tank
7. 1,500 gallon Waste/Used Motor Oil Tank
8. Fluff Bin
9. Feed Hopper
Control Equipment for 8&9: Baghouse
10. Parts washer

401 KAR 59:010 and 63:010

None

None

None

None

None

None

401 KAR 59:010

401 KAR 59:010

401 KAR 59:010 and 59:185

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

See individual emission point listing under Section B for specific requirements. The emissions of VOC's from emission points 01 through 09 shall not exceed 240 TPY, to preclude the PSD threshold of 250 TPY. Compliance with annual emissions and processing limitations imposed pursuant to 401 KAR 50:035, Section 7(1)(a), and contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

SECTION E - CONTROL EQUIPMENT CONDITIONS

Pursuant to 401 KAR 50:012, Section 1(1) and 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the cabinet which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements.
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement;
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]
3. In accordance with the requirements of 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
 - a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
 - b. Have access to and copy, at reasonable times, any records required by the permit:
 - i. During normal office hours, and
 - ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
 - i. During all hours of operation at the source,
 - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii. During an emergency; and
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
 - i. During all hours of operation at the source,
 - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii. During an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. Summary reports of any monitoring required by this permit, other than continuous emission monitors, shall be submitted to the division's Bowling Green Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The reports are due within 30 days after the end of each six-month reporting period that commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. Data from the continuous emission monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6.
 - a. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Bowling Green Regional Office concerning startups, shutdowns, or malfunctions as follows:
 1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
 - b. In accordance with the provisions of 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by general condition 6 a. above) to the Division for Air Quality's Bowling Green Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by general condition F.5.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

7. Pursuant to 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Bowling Green Regional Office and the U.S. EPA in accordance with the following requirements:
- a. Identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status regarding each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent; and
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications should be mailed to the following addresses:**

**Division for Air Quality
Bowling Green Regional Office
1508 Westen Avenue
Bowling Green, KY 42104**

**U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960**

**Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601**

8. In accordance with 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of 401 KAR 50:035, Permits, Section 7(3)(d) **[and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act)]** and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 50:035, Section 12(2)(c);
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]
11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]
15. Permit Shield: Except as provided in 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.
16. All previously issued construction and operating permits are hereby subsumed into this permit.

SECTION G - GENERAL CONDITIONS (CONTINUED)**(b) Permit Expiration and Reapplication Requirements**

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 50:035, Section 15.
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Bowling Green Regional Office in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL CONDITIONS (CONTINUED)

3. Pursuant to 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the division upon a satisfactory request showing that an extension is justified.
4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Conditions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.
6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:

SECTION G - GENERAL CONDITIONS (CONTINUED)

- a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]
- (g) Risk Management Provisions
 1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:
RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346
 2. If requested, submit additional relevant information to the division or the U.S. EPA.
- (h) Ozone depleting substances
 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall

SECTION G - GENERAL CONDITIONS (CONTINUED)

comply with the leak repair requirements pursuant to 40 CFR 82.156.

- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

This is applicable to the Roll Storage (Emission Point 12) at the time of construction of total enclosure and operation of the roll storage building after the construction.

APPLICABLE REGULATIONS: None

1. Operating Limitations:

- a. The permittee shall submit a plan for the construction and operation of the total enclosure at roll storage including capture details and routing of emissions to RTO. This plan shall be submitted to the Division for approval prior to the construction.
- b. The VOC emissions shall be captured by the “capture equipment” at all times when the rolls are stored or when any air emissions (VOCs) are generated/emitted from the roll storage building. The capture efficiency shall at-least be 95% for the emissions from roll storage.
- c. The captured VOC emissions shall always be vented to the Regenerative Thermal Oxidizer (Emission Point 17) (RTO). The RTO shall always be operational and control volatile organic compounds (VOCs) and be operated properly in accordance with manufacturer’s specifications and/or standard operating procedures at all times any of the emissions units [Emission Points 10, 11, 12, 14 and 15] are in operation.

2. Emission Limitations: N/A**3. Testing Requirements:**

- a. Roll Storage: Testing shall be done to measure the pentane content in the extruded material (PCEM) and in the extruded material after being aged in Roll Storage (PCARS). The testing shall be done to establish a representative emission factor from all the product grades. The pentane content shall be measured immediately after the extrusion and after the material is aged and is ready to go to thermoforming. The difference is all assumed to be VOC emissions from roll storage. This will be used for the compliance with BACT emission limit. Testing protocol shall be submitted to measure all the emissions generated from the roll storage building. A submission of the testing protocol shall be done in accordance with the timeframes specified in Section G(d)(5) and (6) of this permit. The Division reserves the right to require additional testing.
- b. Performance/Compliance testing shall be performed for the control equipment (capturing device, duct work, and the RTO) according to the timeframes specified in Section G(d)(5) of this permit. Testing shall be done during the performance test to determine the following:
 1. The capture efficiency of the emissions capturing device.
 2. The Control Efficiency of the RTO. See the BACT requirements for RTO (Page 15).

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following:

- a. See Section B, BACT requirements for RTO (Page 16).
- b. The permittee shall monitor all the parameters necessary and approved by Division to monitor proper capture and control of the VOC emissions from the roll storage.

5. Specific Record keeping Requirements:

- a. See Specific Monitoring Requirements above.
- b. A log shall be kept of all routine and non routine maintenance performed on each capturing device.

6. Specific Reporting Requirements:

All the times when the capture equipment is not working shall be reported to Division's Bowling Green regional office.

7. Specific Control Equipment Operating Conditions:

See the BACT requirements for RTO in Section B (Page 17).

SECTION I - COMPLIANCE SCHEDULE

The permittee shall construct a total enclosure for the roll storage to capture VOC emissions within one year of starting up the converted (conversion to usage of Iso-Pentane) DI-Foam extrusion process. The captured emissions shall be routed to RTO for control.

DIVISION FOR AIR QUALITY
803 Schenkel Lane
Frankfort, Kentucky 40601
Phone (502) 573-3382 Fax. (502) 573-3787

Emission Unit Number (Listed in permit no: V-97-037)	Applicant Emission Point Number or Stack or Vent Number	Stack Height or Height of Release (ft)	Diameter (ft.)	Temperature (° F)	Flow Rate (ACFM)	Comments

<i>Provide the following information to identify the pollutants emitted from each emission unit. Use additional sheets if necessary.</i>						
Emission Unit Number (Listed in permit no: V-97-037)	Applicant Emission Point Number	Expected Date of Construction yy/mm/dd	Process Description	Pollutant Name	Type of Control Equipment	% Removal Efficiency of Control Equipment

SECTION 2: CERTIFICATION AND SUBMITTAL	
<i>The following certification must be signed by a responsible official as defined in 401 KAR 50:035 Section 1(32), and must be notarized.</i>	
I certify that, following reasonable inquiry and to the best of my knowledge, the information contained in this notification is complete and accurate.	
Signature:	Date:
Print Name:	Title:
Submit the completed registration form to the Kentucky Division for Air Quality; Attn: Caroline P Haight, Permit Review Branch; 803 Schenkel Lane; Frankfort, KY 40601.	